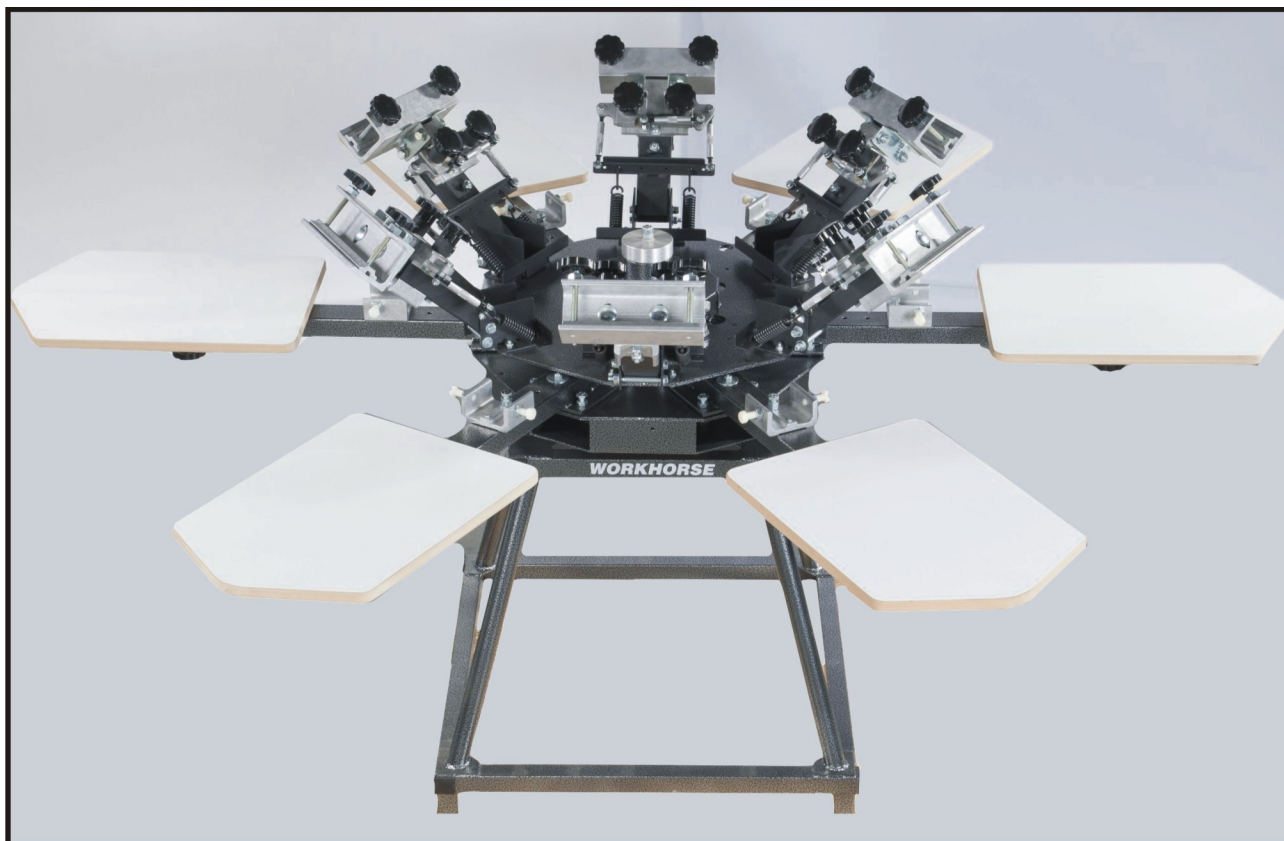


# Odyssey Series Service Manual



**WORKHORSE**  
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## Introduction:

Odyssey manual printers are value priced industrial machines. While this is our “Entry Level” machine, it’s unlike any other in its price range. The Odyssey line is ideal for start-up operations such as Home Based Businesses, Sporting Good Retailers and Embroidery Companies that want to add a screen printing department. In addition to the rotary load style printers, Odyssey printers are available in economical and specialty table top models as well. With the optional cap, jacket, sign, coozie, sticker, and pocket attachments, this machine is the do it all answer for any small to medium screen printing business.

## Standard Operations Guide:

Once the Odyssey press is installed the user can begin to print. Simple adjustments, such as off-contact and screen angle, should be set up to the users desired height. Off contact is the distance between the screen and the sun-straight. Screen angle adjustments allow one end of the screen to be set at a different height from the other end. This is useful when a thicker material is being printed and the off contact is set high. Screen angle also allows you to level the screen with simple adjustments.

Micro-registrations or “micros” are essential in getting a quality print. Micros give a field of movement that allow the user to adjust the image on several axis’s. When setting up a multiple color print, the micros allow for tight registration and proper alignment of all colors in the image. Never use anything but the micro and screen clamp knobs to tighten the assemblies down. Damage to the micros and head assembly can occur if not used properly. Platen alignment is another important adjustment used when printing. The distance of each platen from a common point on the print arms allows for the image to be printed in the same place on every platen.

Using these adjustments will ensure the quality of the print and provide ease in the printing process. Proper and regular maintenance of the machine will ensure the longevity of the parts and that the machine performs at its best.

## Features/ Specs:

- Dimensions

98” Diameter

36” Height

- Construction

Sturdy tubular steel construction

Large diameter center shaft

- Features

Fine thread micro registration

Adjustable off contact and screen angles

Easy load, quick change pallets

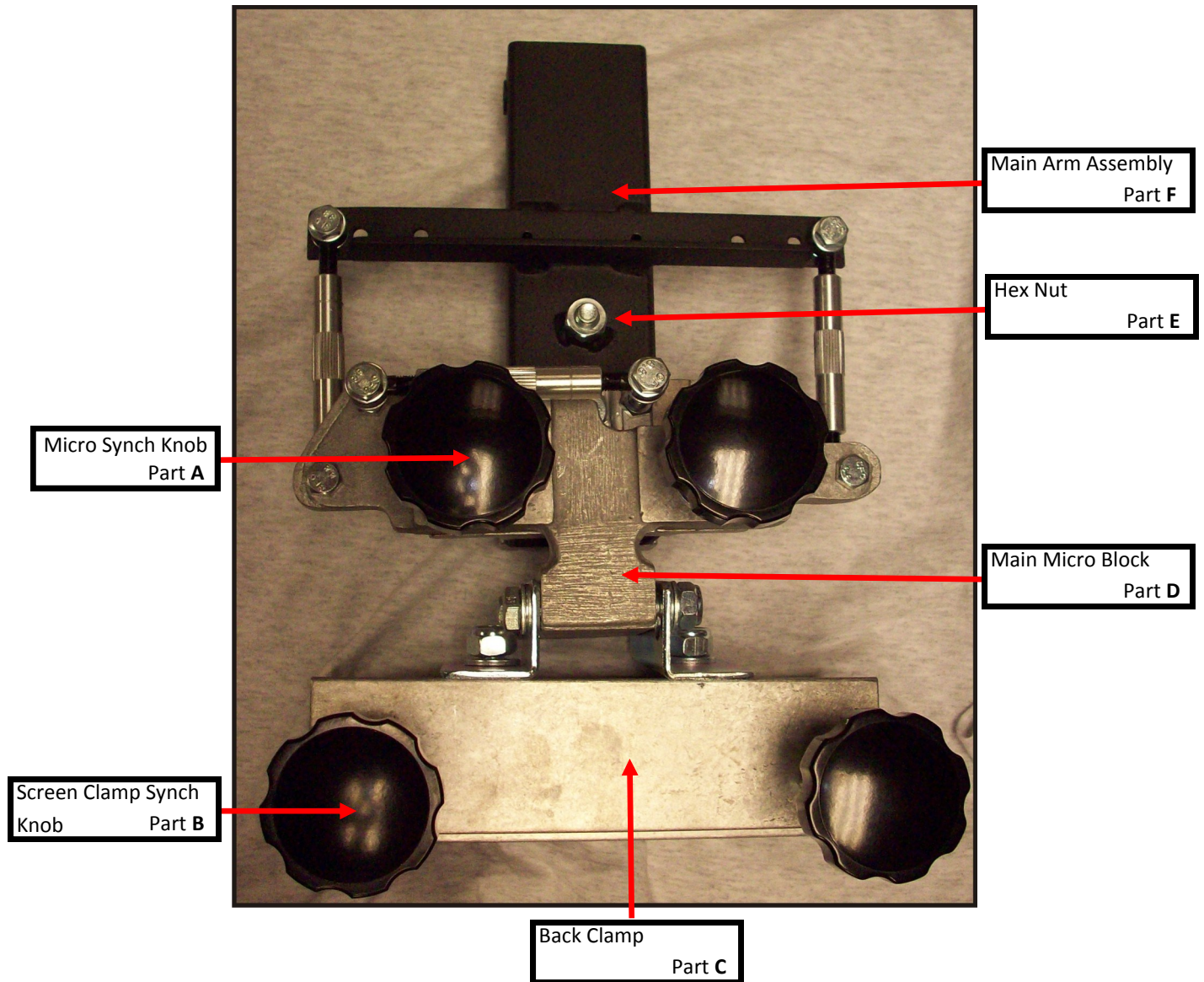
Upgradable four color four station to six color six station

Fully adjustable print heads.

Large diameter registration points

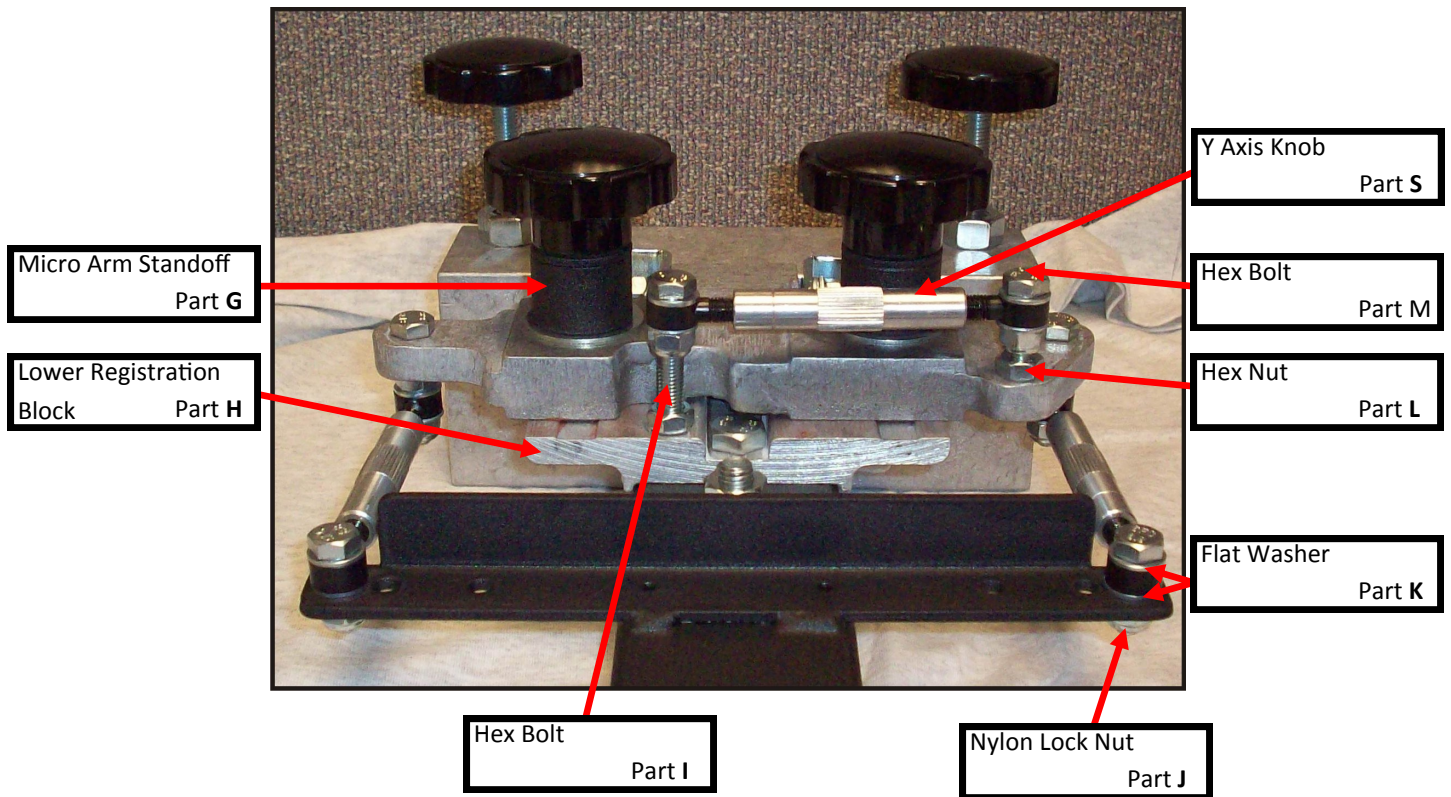
## External Layout

Top View Of Print Head

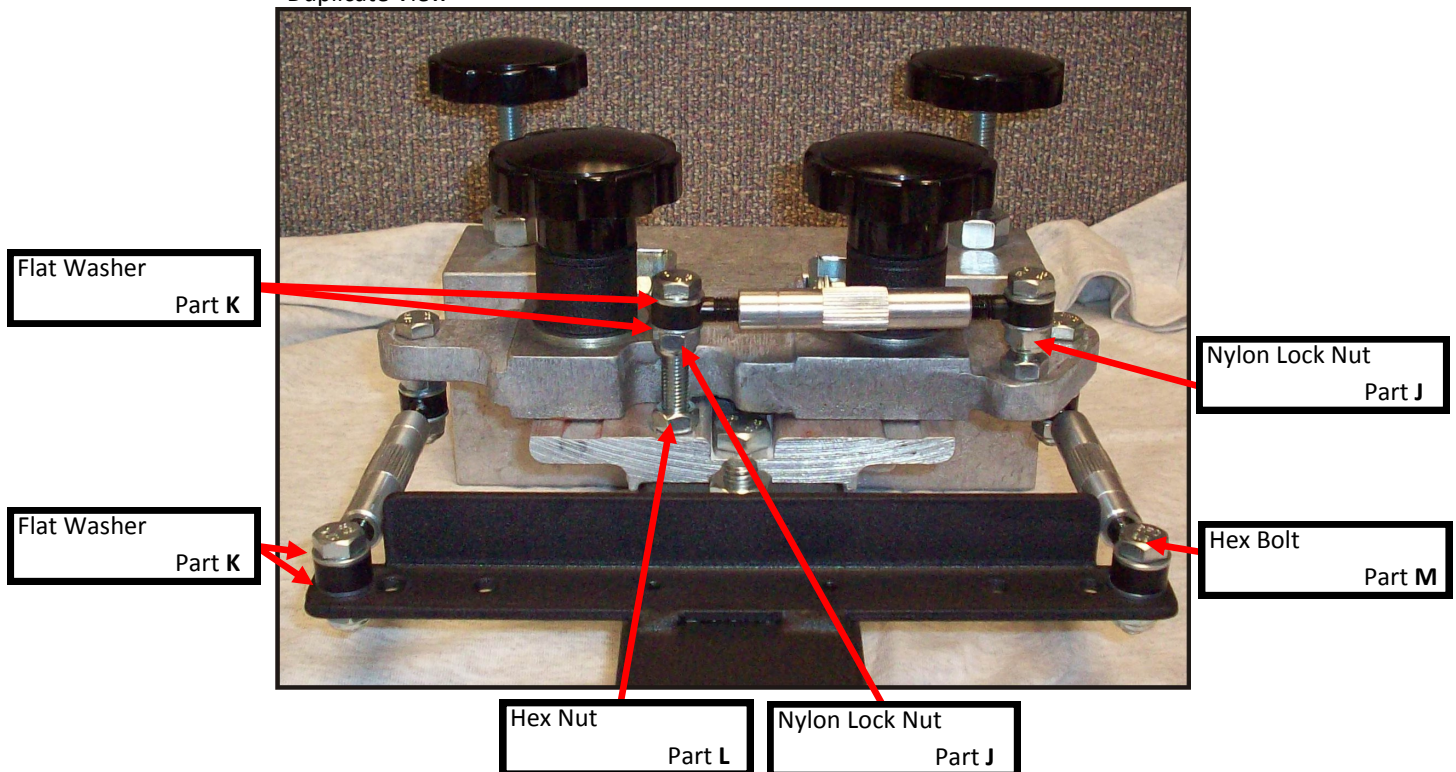


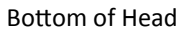


Back of Head



Duplicate View







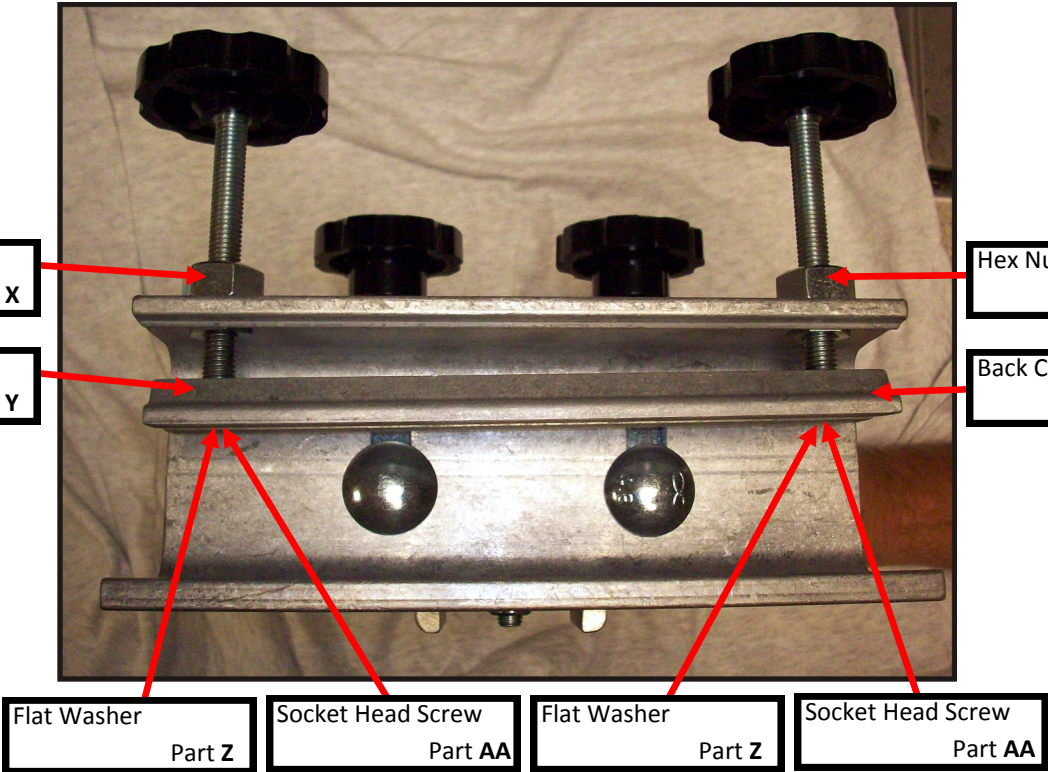
Front View

Hex Nut  
Part X

Back Clamp Bar  
Part Y

Hex Nut  
Part X

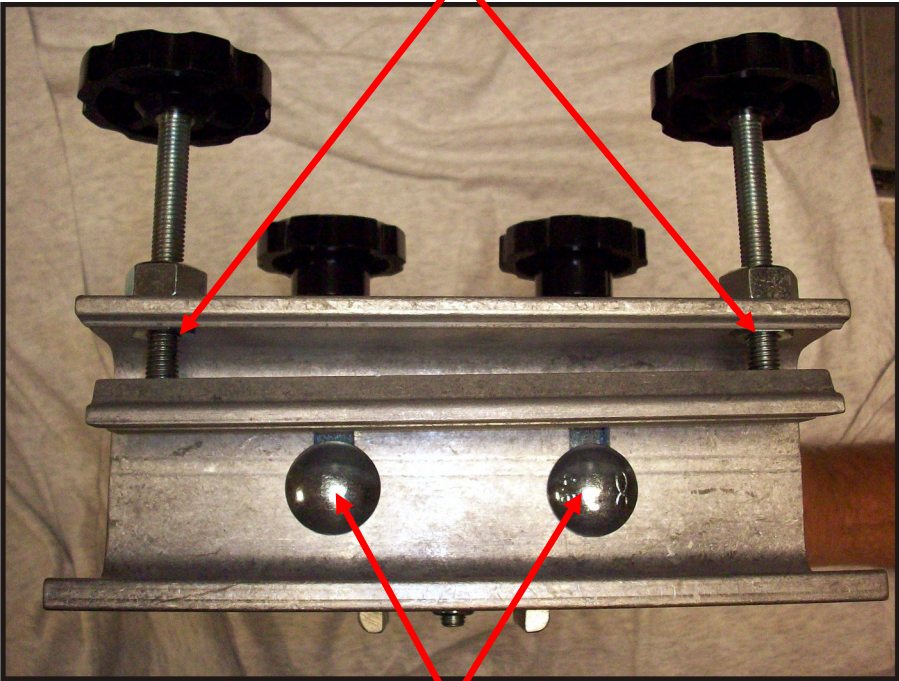
Back Clamp Bar  
Part Y



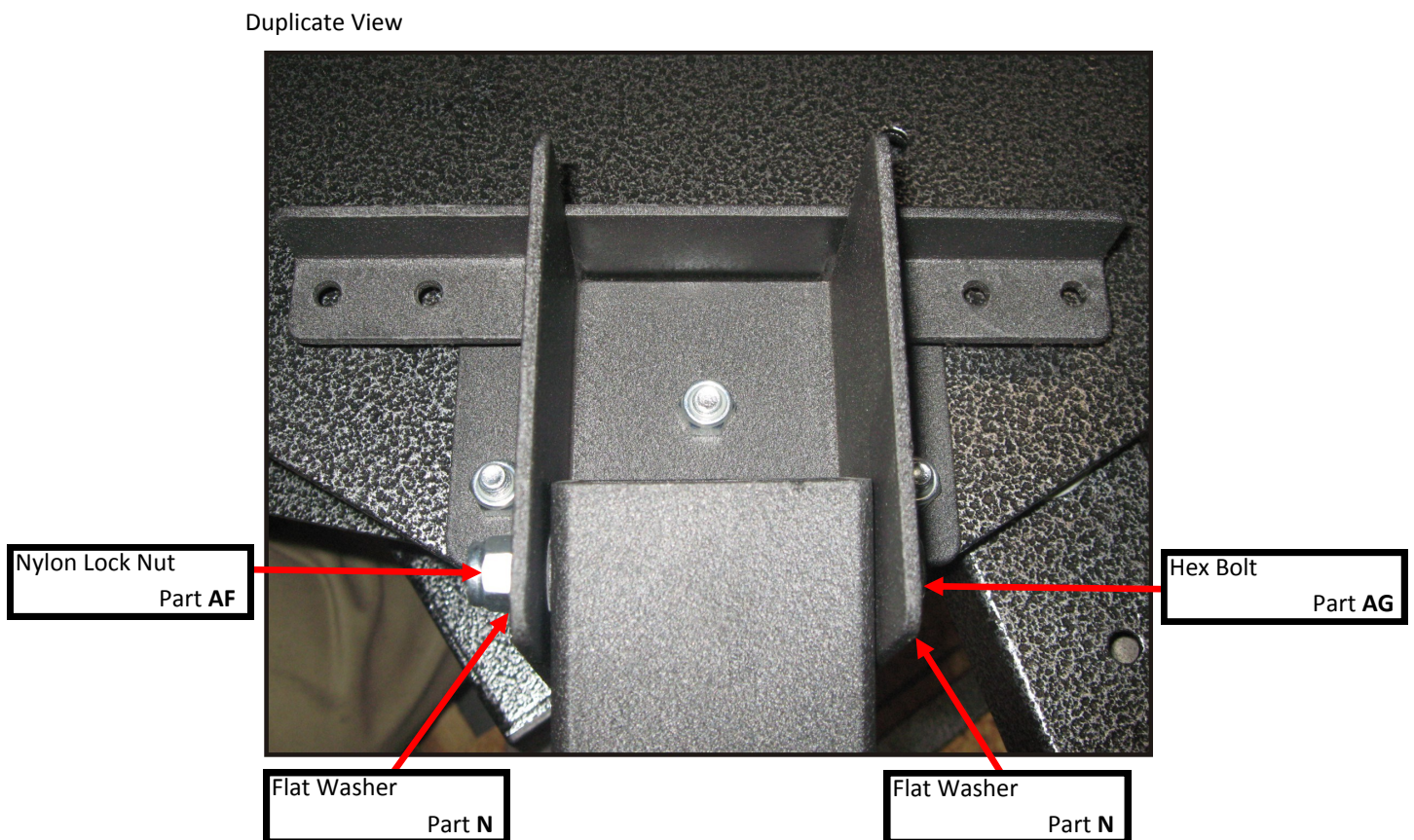
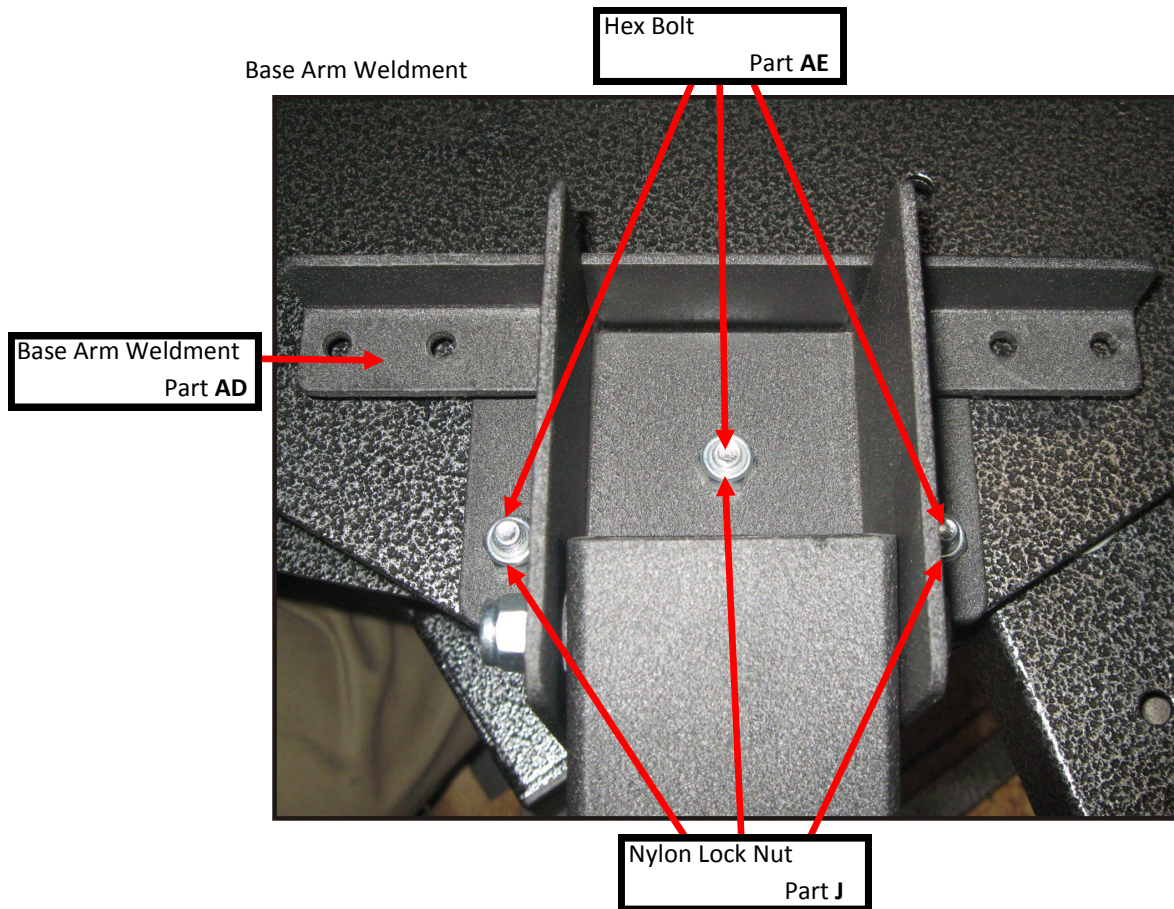
Duplicate View

Insert  
Part AB

Carriage bolt  
Part AC







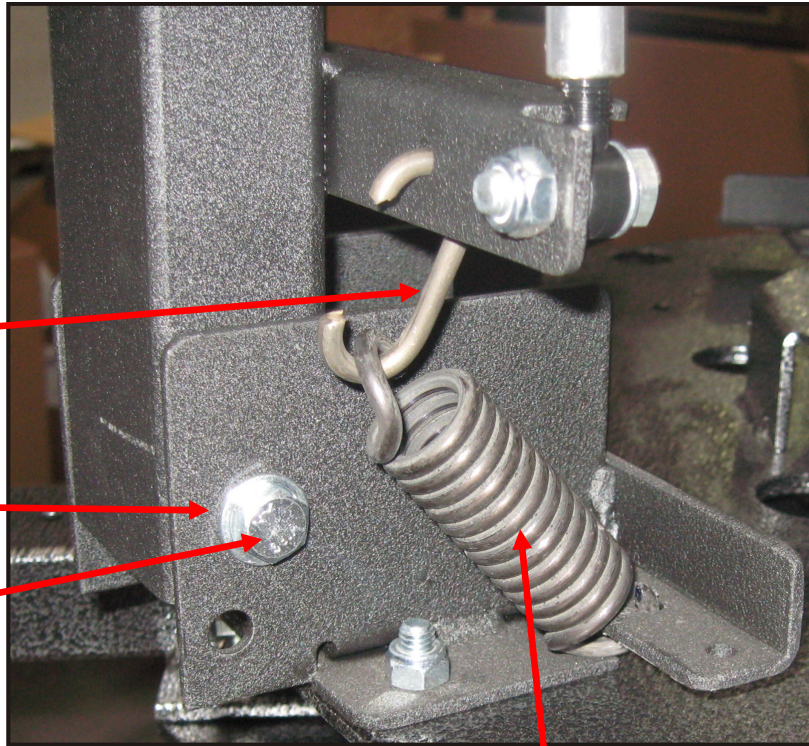


Arm Spring & Hog Ring

Hog Ring  
Part AH

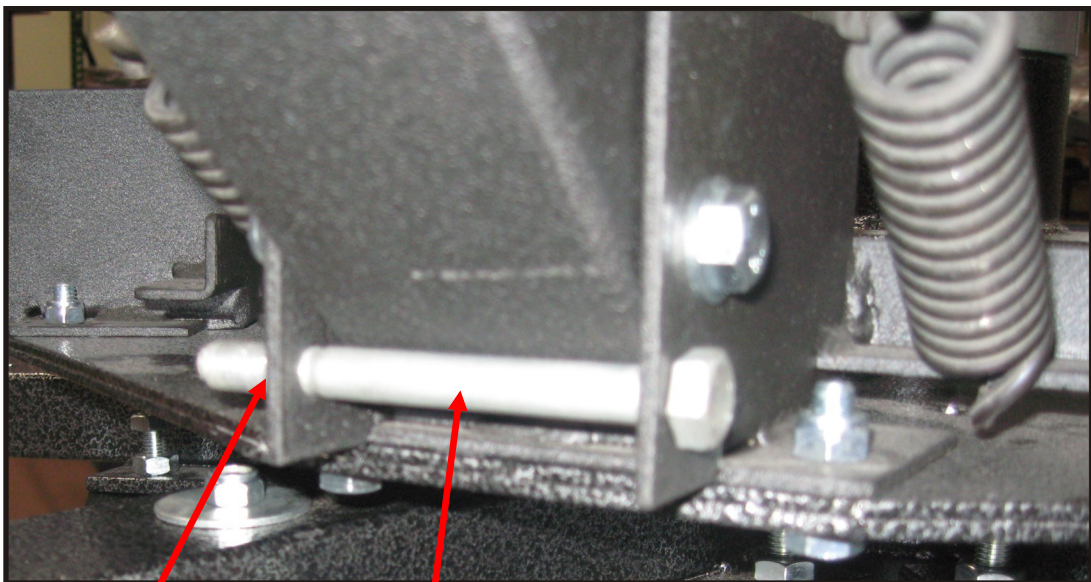
Flat Washer  
Part N

Hex Bolt  
Part AG



Spring  
Part AI

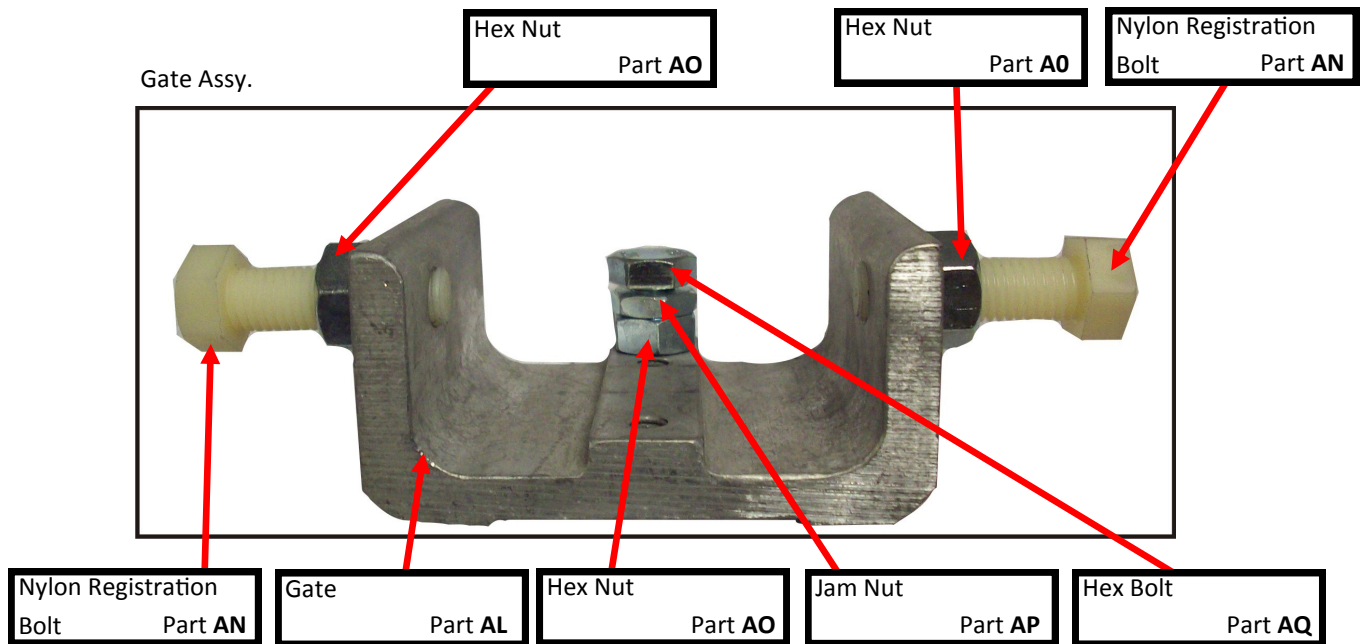
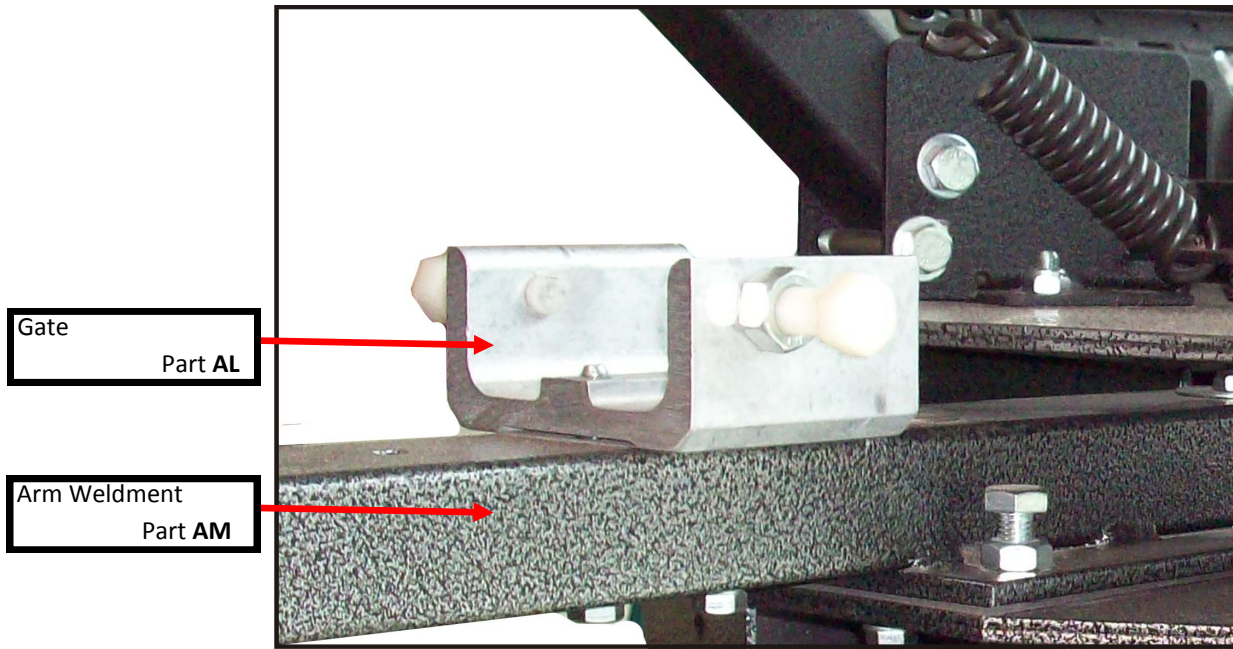
Under Arm View



Hex Nut  
Part AJ

Hex Bolt  
Part AK

Gate Assy.

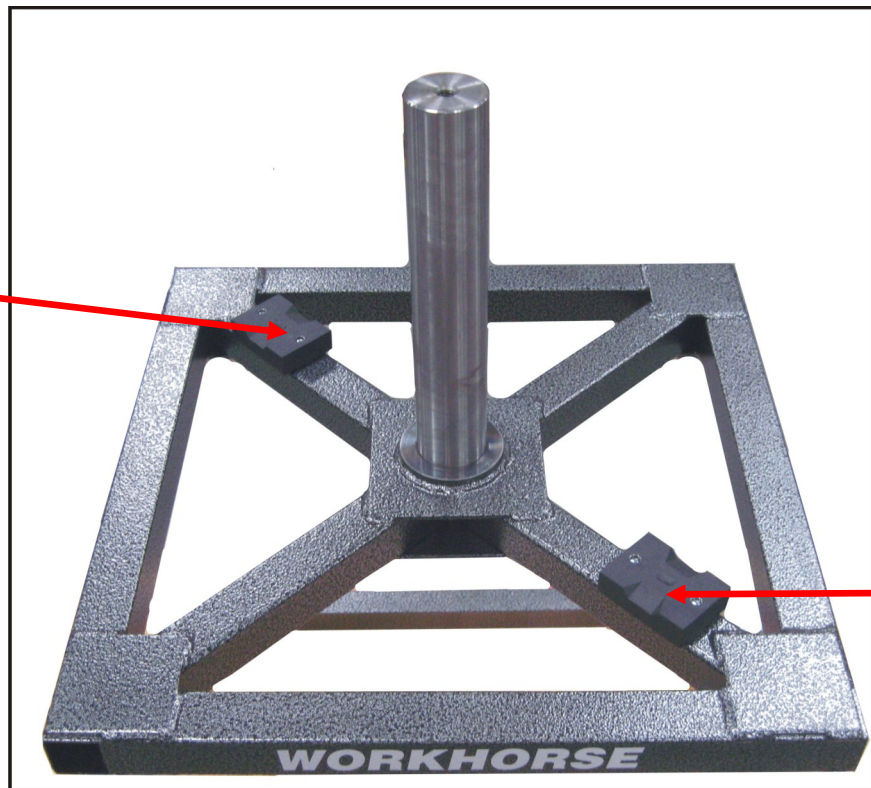




## Internal Layout

Top of Base

Ball Button Holder  
Part AR



Ball Button Holder  
Part AR

Underneath of Base

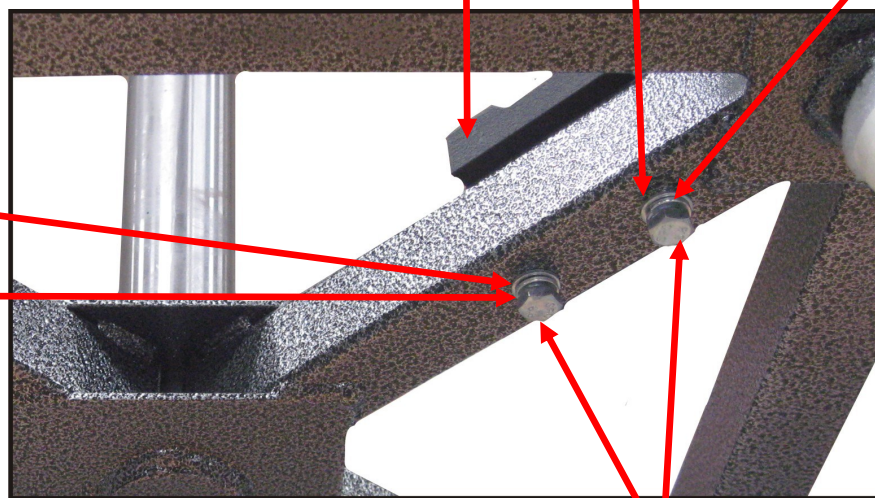
Ball Button Holder  
Part AR

Flat Washer  
Part K

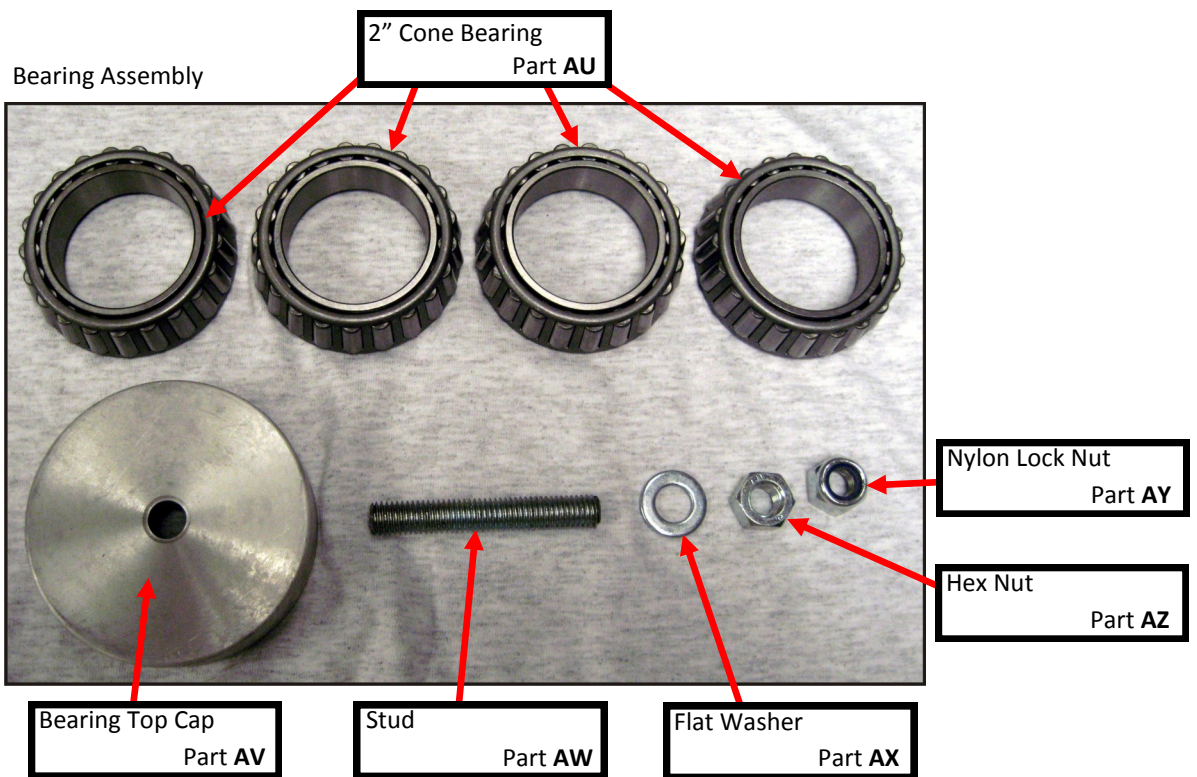
Lock Washer  
Part AS

Flat Washer  
Part K

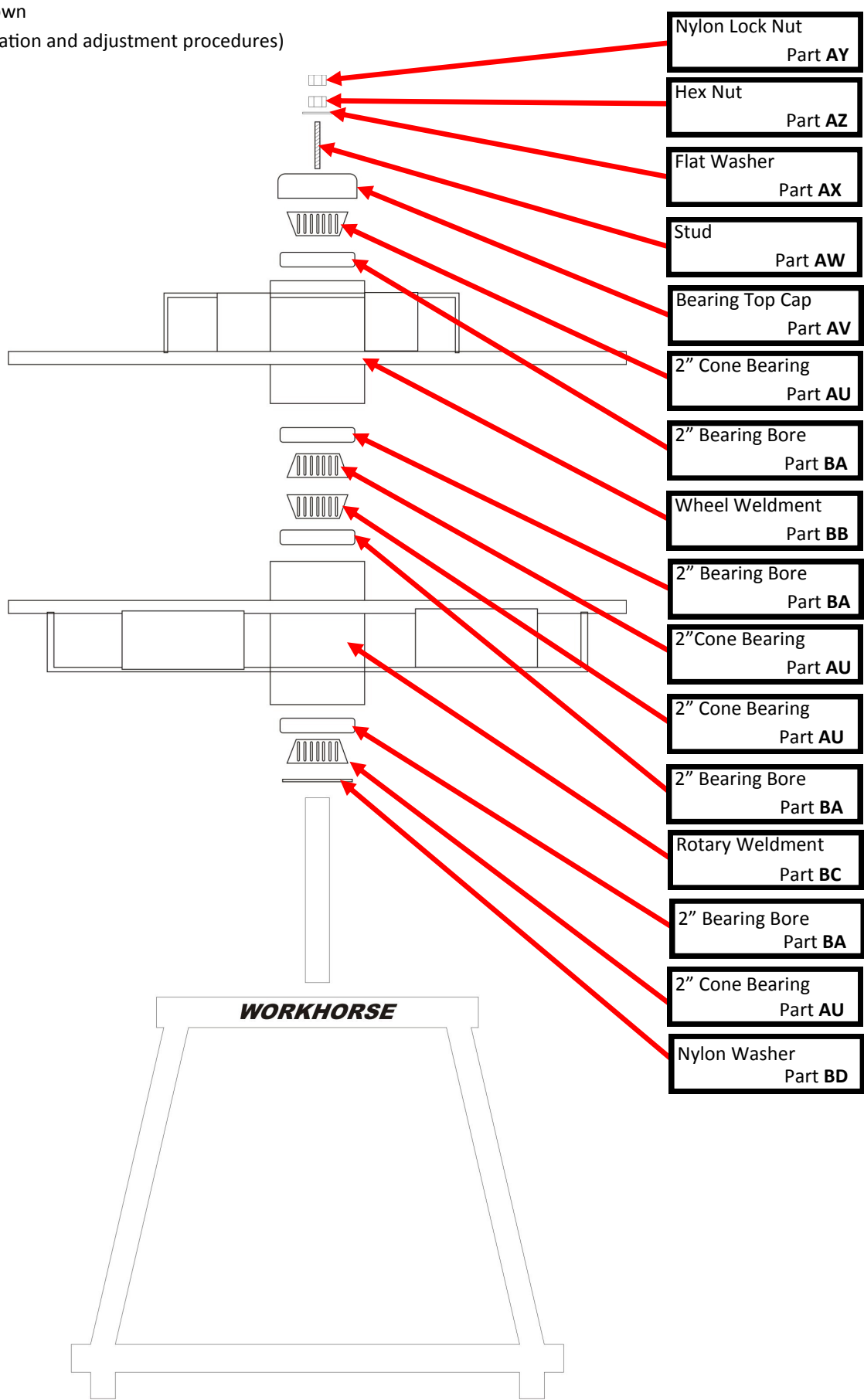
Lock Washer  
Part AS



Hex Bolt  
Part AT

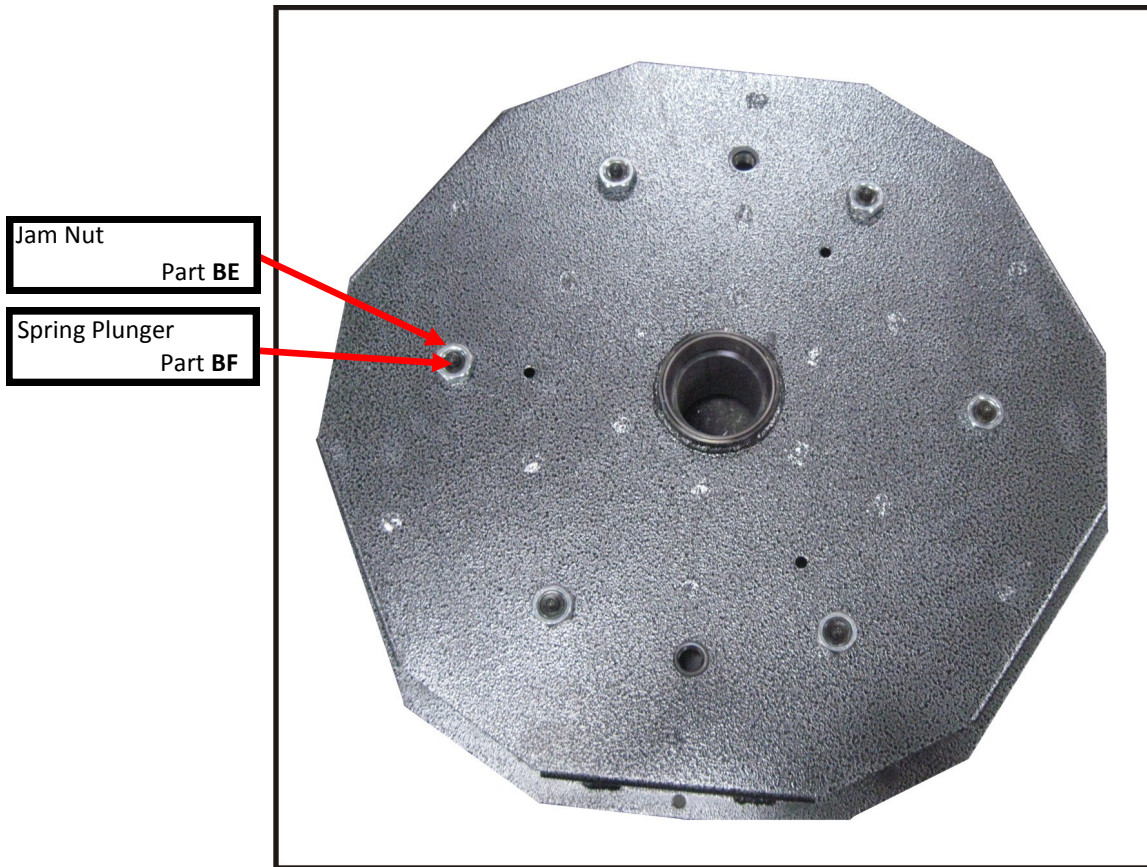


Bearing Assembly Breakdown  
(Refer to FAQ #2 for lubrication and adjustment procedures)

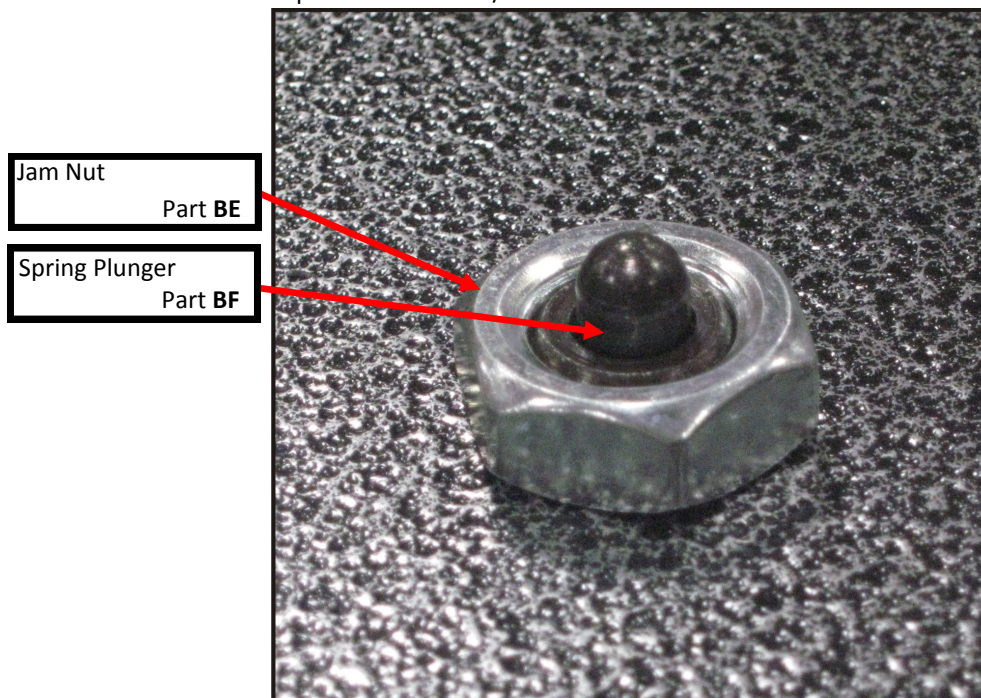




Bottom View of Rotary Weldment

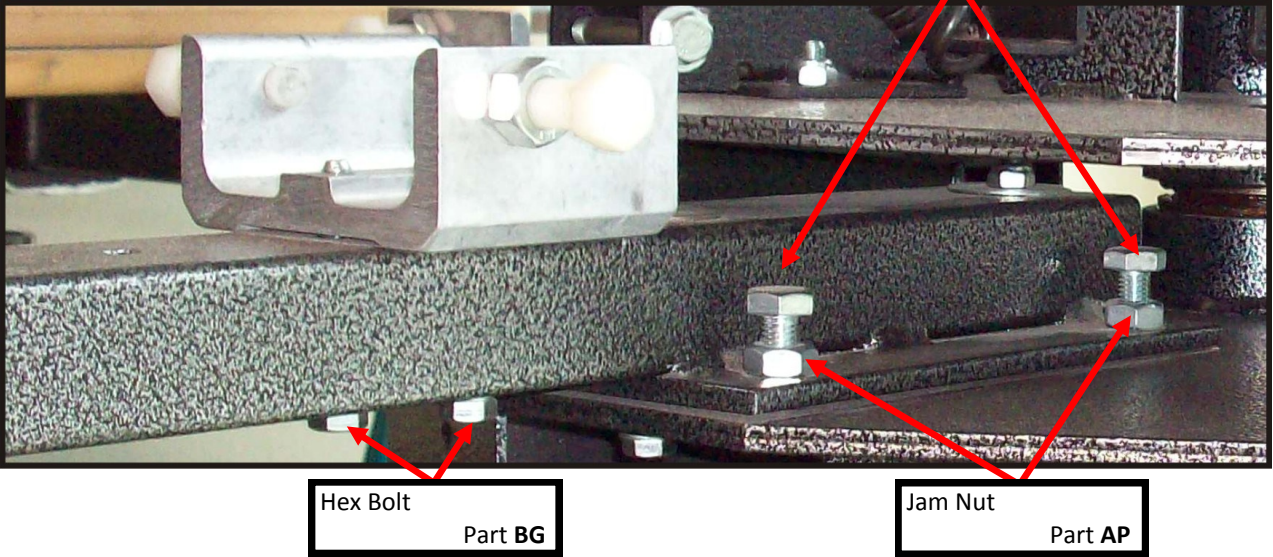


Exploded View of BE/BF

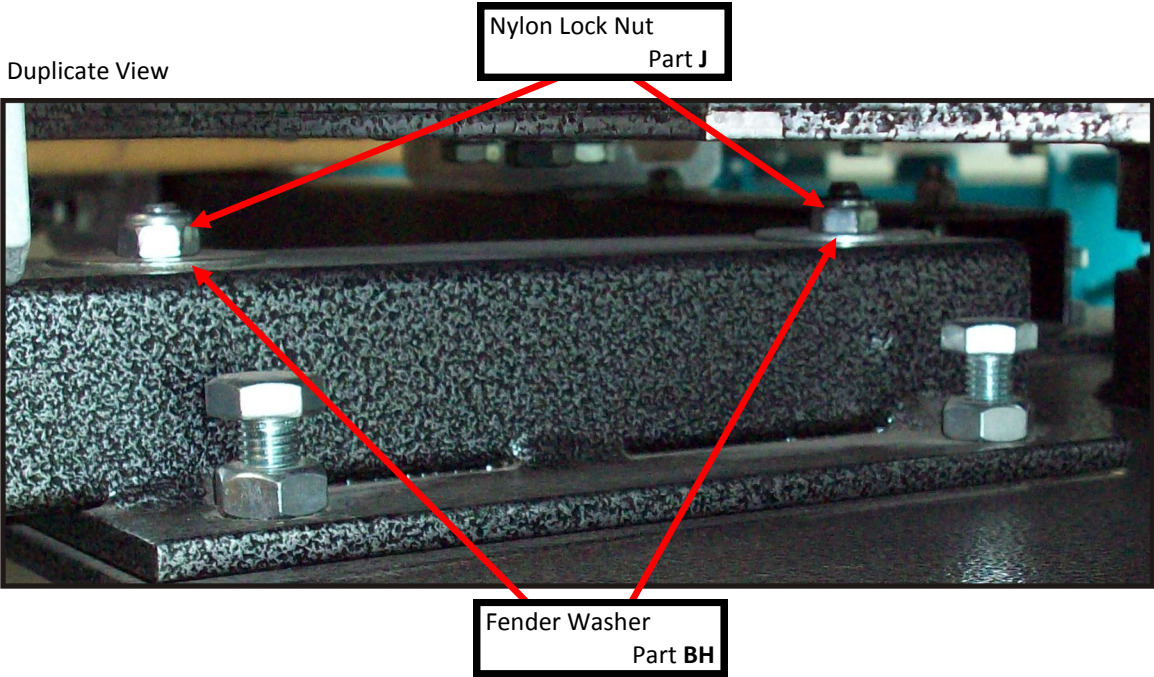




Arm Weldment/ Leveler View



Duplicate View



## FAQ.

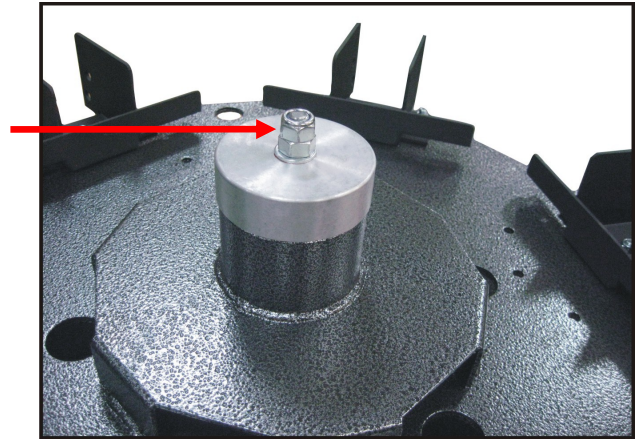
### 1. My knobs and micro adjusters don't turn?

Check to see that they are not gummed up with spray adhesive or ink. If they are clean, lubricate them with an oil base solvent or re-grease them with a lithium grease.

### 2. My platens and print heads are stiff and hard to spin or are too loose. How do I adjust them?

Check to see that the resistant nut is not too tight or loose and if the internal tapered bearings need grease. If grease is needed, use a medium viscosity bearing grease. We recommend Shell Alvania Grease. Once greased, adjust the jam nut and lock nut until the press rotates 1/2 rotation and stops on its own (Image 1)

Image 1



### 3. How do I adjust my off contact?

The Odyssey comes from the factory leveled and a standard off contact is set.

To adjust the off contact, loosen both of the contact adjustment nuts and bolts by using an 11/16" wrench (Image 2). Then raise or lower the clamp to the desired "off contact" height (Image 3). After the desired height is met, tighten the off contact nuts and bolts (Image 2). The recommended off contact is 1/8" from the platen.

Image 2

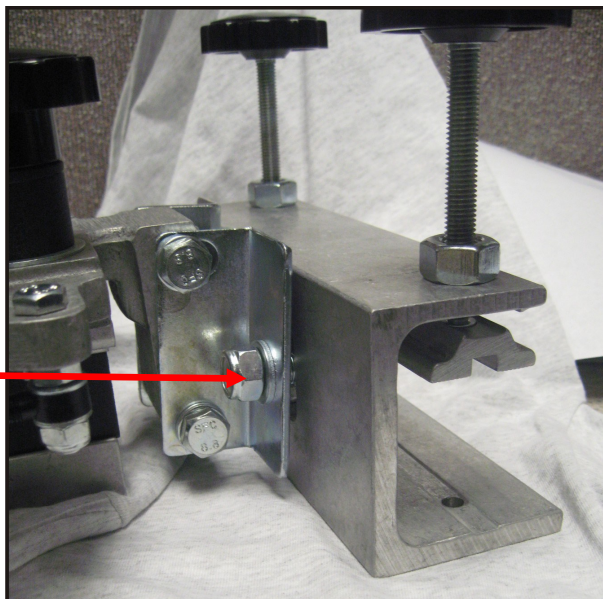
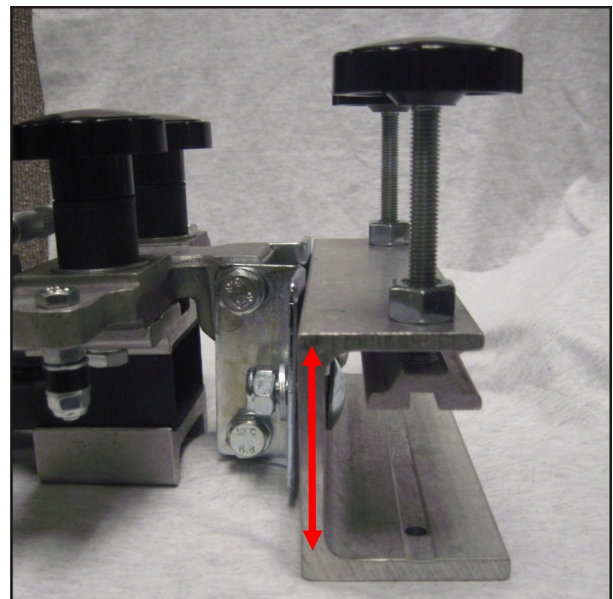


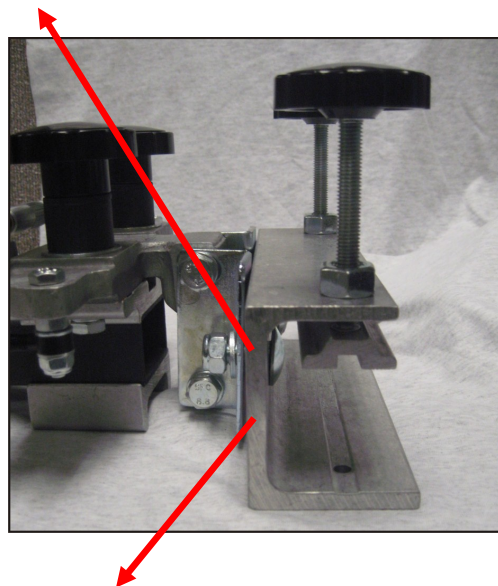
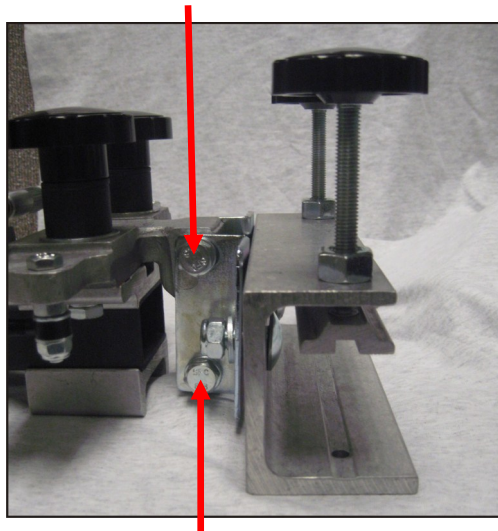
Image 3





#### 4. How do I adjust the screen angle?

Loosen the two screen angle bolts using an 11/16" wrench, when doing so, make sure the off contact adjustment nuts and bolts are tight (Image 4). Tilt the head up or down until desired angle is reached. The recommended height is 1/8" from platen at any given point to the screen (Image 5). When finished, tighten the screen angle nuts and bolts (Image 4).



#### 5. When should I replace the springs and hog rings?

Its recommended to replace the springs and hog-rings once a year. See Page 19 for spring and hog ring installation procedures.

#### 6. Why are my hog rings and springs breaking?

They most commonly break from standard wear and tear. Start by checking the last time they were replaced. It could be the hog rings and springs have not been replaced in a long time. There is a chance that the hog ring and not the spring, or the spring and not the hog ring have been replaced. When replacing one, you should replace the other. Make sure when ordering new hog rings and springs that you order the correct size for your press, and that you order a complete set for the machine.

#### 7. Why is one head not registering, but all the other heads register fine?

It could be because the measurements are off. If the measurements are off, replace the arm registration blocks with a matched pair. Using precision calipers, measure the arm registration blocks ( Image 6 / 7 ). The arm registration blocks should measure within .004 of an inch of each other.

Image 6

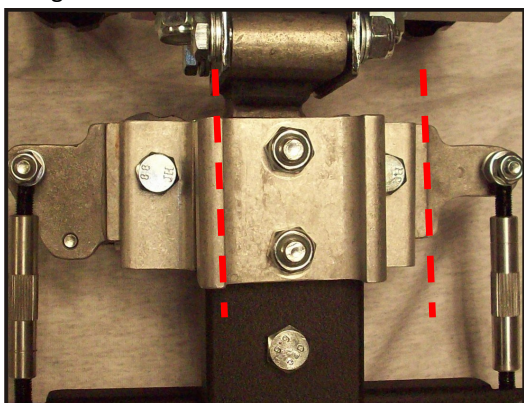
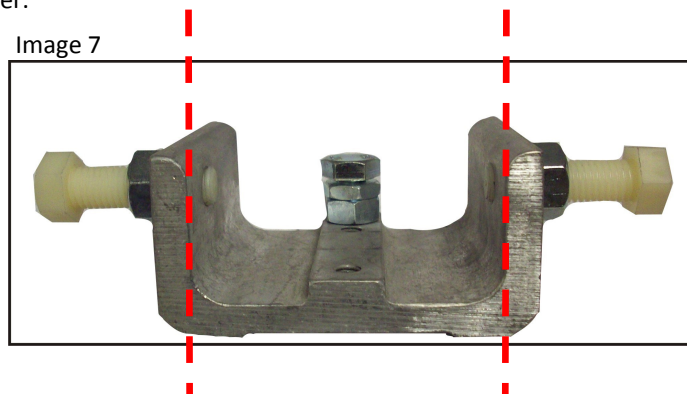


Image 7



## 8. How do I turn my 4 color, 4 station press to a 6 color, 4 station press?

**Step 1.** Start by removing the print heads. Remove all 3 nylon lock nuts and bolts, save all the hardware as you will be reusing it (Image 8).

**Step 2.** Mount the print heads using the 3 outer holes on the wheel weldment,. Use the same hardware you removed from the print heads in step 1 (Image 8).

**Step 3.** Relocate the registration gate to the first set of holes on the print arm, use the same hardware you removed from the registration gate (Image 9)

**Step 4.** To adjust the off contact loosen both of the contact adjustment nuts and bolts with an 11/16" wrench (Image 2). Then raise or lower the screen clamp to the desired "off contact" height (Image 3). Then tighten the off contact nuts and bolts. Recommended off contact should be set at least 1/8" from the platen.

Image 8

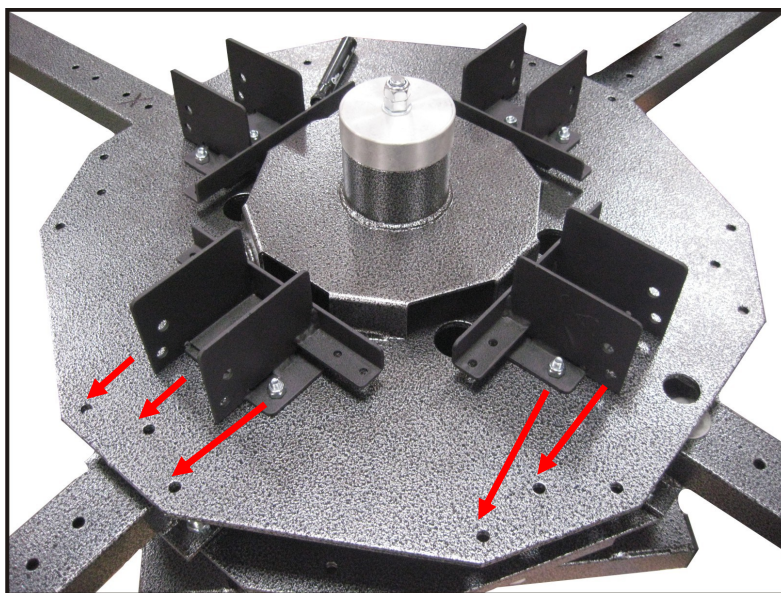
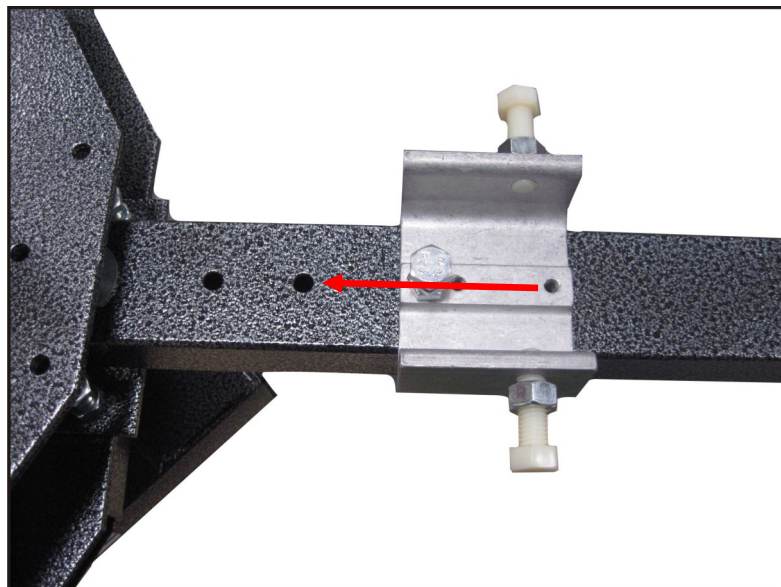


Image 9



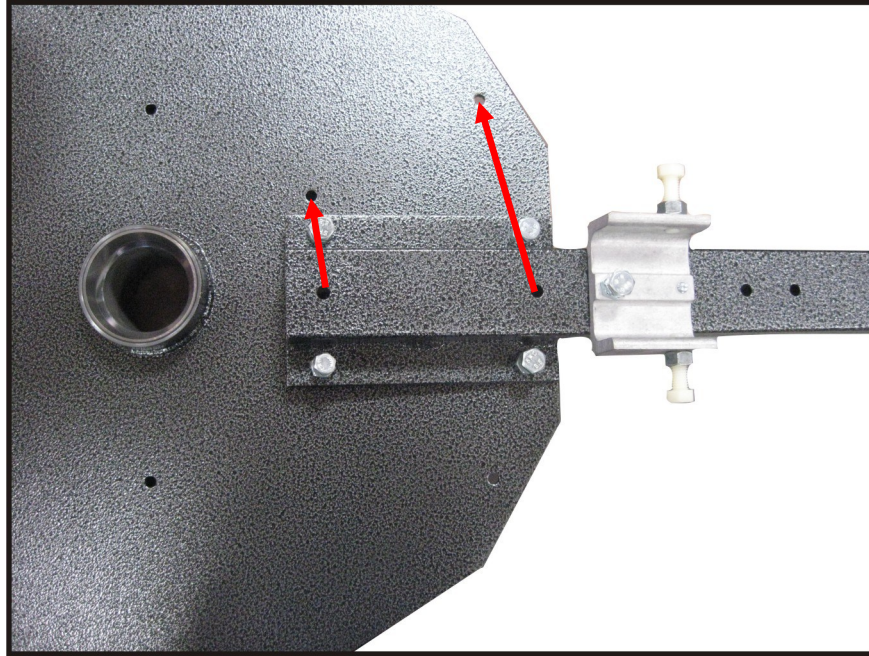
## 9. How do I turn my 4 color, 4 station press to a 6 color, 6 station press?

**Step 1.** Start by removing the print heads, Remove the 3 nylon lock nuts and bolts, save all the hardware as you will be reusing it (Image 8).

**Step 2.** Mount the print heads, using the 3 outer holes on the wheel weldment. Use the same hardware you removed from the print heads (Image 8).

**Step 3.** Remove the print arms by removing the 2 bolts and nuts in the center of the arm, save all the hardware as you will be reusing it (Image 10).

Image 10



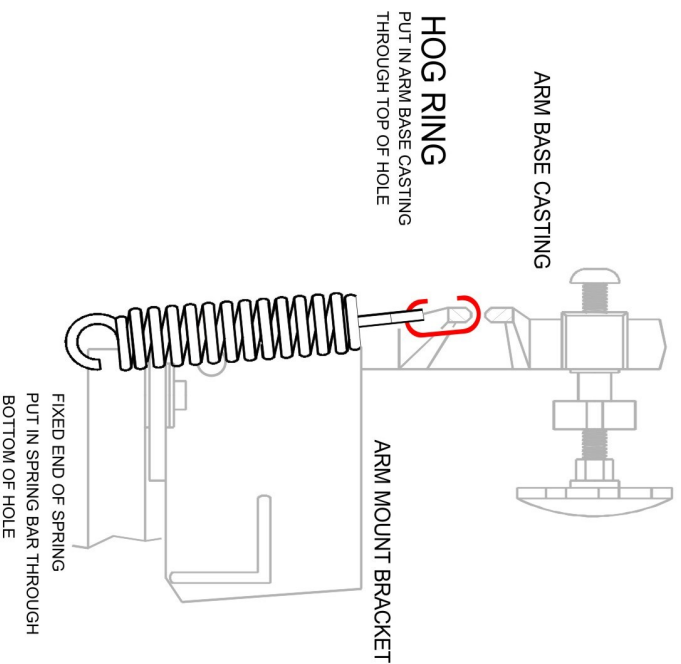
**Step 4.** Mount the pallet arms using the 2 corresponding outer holes, use the same hardware you removed from the print arms (Image 10).

**Step 5.** Relocate the registration gate to the first set of holes on the print arm, use the same hardware originally removed from the registration gate (Image 9).

**Step 6.** Adjust the off contact, loosen both off the contact adjustment nuts and bolts with an 11/16" wrench (Image 2). Then raise or lower the screen clamp to the desired "off contact" height (Image 3). After desired height is met, tighten the off contact nuts and bolts. Recommended off contact is 1/8" from the platen.



Image 11



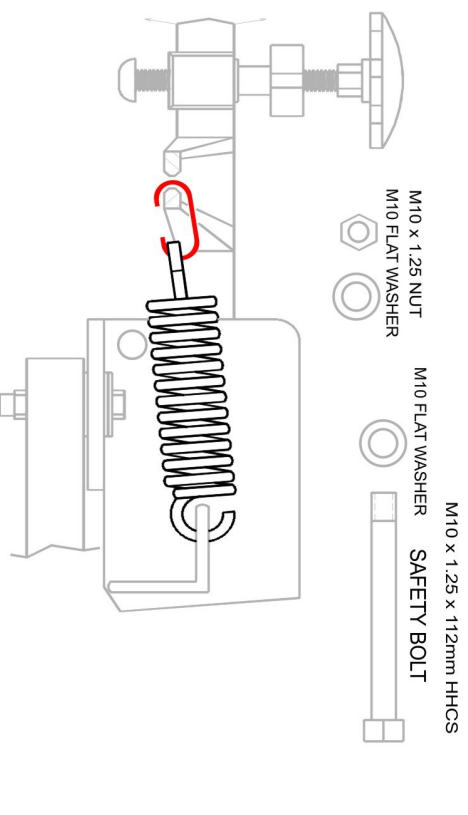
1. Insert hog-ring thru the top inside hole in the arm base casting (Image 11).
2. Raise the arm up and back to hook one end of the spring thru the hog ring and the other end of the spring thru the bottom side of the spring bar.

NOTE: Make sure the safety bolt, nut and washers are all within an arms reach.

3. With two springs on ( one on each side of the print arm and secured in the holes), pull the arm down into a registration gate on the already mounted print stations.
4. Hold the arm down with one hand and insert the safety bolt thru both sides of the arm mount bracket.
5. Place the washers and nut onto the threaded end of the safety bolt and **\*\*HAND TIGHTEN ONLY\*\***
6. Repeat procedure for any remaining arms.

NOTE: To change or replace springs, remove safety bolt and reverse steps 4 and 5.

Image 12



Hog Ring P/N: 71007

Spring P/N: 71010

## Micro Adjustments Explained

Off Contact Adjustment; to raise or lower the off contact , loosen the nylon lock nuts. A vertical move up will raise the off contact and a move down will lower it.

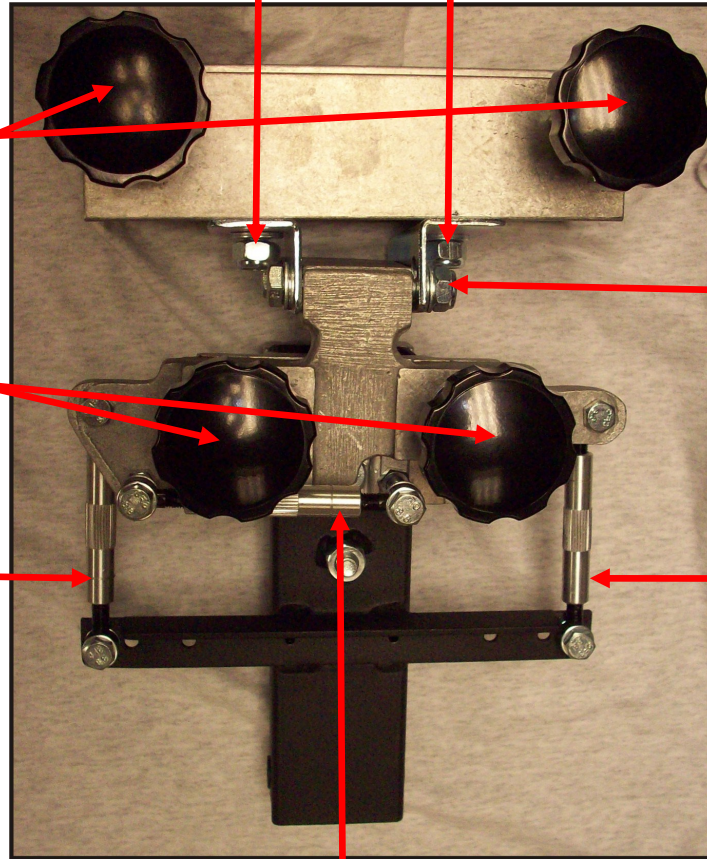
Screen Clamp Synch Knob;  
Used for clamping and holding the screen in place.

Micro Synch Knobs;  
before any adjustments can be made these must be loosened.

After loosening the micro synch knob, turn this knob to move this side of the screen towards or away from you.

**Note:**

If you move both the left and right knobs at the same time the screen will move straight forwards or backwards at the same time.



Once the off contact adjustment has been made, you may need to level out the screen angle. Loosen the nut and tilt the back clamp up or down until desired angle is reached, secure by re-tightening.

After loosening the micro synch knob, turn this knob to move this side of the screen towards or away from you.

**Note:**

If you move both the left and right knobs at the same time the screen will move straight forwards or backwards at the same time.

After Loosening the micro synch knobs, turn this knob to move the screen left to right.

## Comprehensive Parts List.

Description			P/N	Description			P/N
A.	Micro Synch Knob		74006	AG.	Hex Bolt (3/8 - 16 x 3 - 1/2)		41-HB-375-60
B.	Screen Clamp Synch Knob		74011	AH.	Hog Ring		71006
C.	Back Screen Clamp		80033	AI.	Spring		71010
D.	Center Casting		81128	AJ.	Hex Nut		42-HEX-375-20
E.	Hex Nut		42-HEX-M10-15	AK.	Hex Bolt (3/8 - 16 x 3 - 3/4)		41-HB-375-75
F.	Micro Arm Assembly		85046	AL.	Gate		80031
G.	Micro Arm Standoff		85147	AM.	Print Station Weldment		85142
H.	Lower Registration Block		81116	AN.	Nylon Registration Bolt		41-NYL-M12-10
I.	Hex Bolt (1.25 x 40mm)		41-HTB-M8-10	AO.	Hex Nut		42-HEX-M10-15
J.	Nylon Lock Nut (M8 x 1.25)		42-NYL-M8-10	AP.	Jam Nut		42-JAM-M10-10
K.	Flat Washer		43-FLT-M8-10	AQ.	Hex Bolt		41-HB-M10-20
L.	Hex Nut (M8 x 1.25)		42-HEX-M8-10	AR.	Detent Block		81315
M.	Hex Bolt (1.25 x 25mm)		41-HTB-M8-10	AS.	Lock Washer		43-LOC-M8-10
N.	Flat Washer		43-FLT-M10-10	AT.	Hex Bolt (1.25 x 60mm)		41-HTB-M8-30
O.	Nylon Lock Nut		42-NYL-M10-10	AU.	2" Cone Bearing		75002
P.	Hex Bolt (1.5 x 70mm)		41-HB-M10-30	AV.	Bearing Top Cap		20013
Q.	Rod End (Right Hand Thread)		75425	AW.	Stud		81002
R.	Hex Bolt (1.25 x 70mm)		41-HB-M8-30	AX.	Flat Washer		43-FLT-M12-10
S.	Y Axis Knob (5/16 X 24)		60267	AY.	Nylon Lock Nut		42-NYL-M12-10
T.	Rod End (Left Hand Thread)		75424	AZ.	Hex Nut		42-HEX-M12-10
U.	Angle Adj. Bracket (Left)		60215	BA.	2" Bearing Bore Cup		75001
V.	Angle Adj. Bracket (Right)		60214	BB.	Wheel Weldment		85138
W.	Arm Registration Block		81302	BC.	Rotary Weldment		85170
X.	Hex Nut (9/16 x 12)		42-HEX-5625-10	BD.	Nylon Washer		60169
Y.	Back Clamp Bar		81025	BE.	Jam Nut		42-JAM-750-10
Z.	Flat Washer		43-FLT-M4-10	BF.	Spring Plunger		71015
AA.	Socket Head Screw ( .7 x 10mm)		41-SHCS-M4-15	BG.	Hex Bolt		41-HTB-M8-30
AB.	Insert (M10 Int. 9/16 )		60079-1	BH.	Fender Washer		43-FND-375-30
AC.	Carriage Bolt (1.75 x 30mm)		41-CB-M12-20				
AD.	Base Arm Weldment		85143				
AE.	Hex Bolt (1.25 x 20mm)		41-HB-M8-10				
AF.	Nylon Lock Nut		42-NYL-375-10				